REMARKS

Claims 1-47 were pending in the Office Action. Upon entry of the present paper, claim 37 is canceled without prejudice or disclaimer, and claims 1-36 and 38-47 remain pending. The treatment of the claims in the Office Action is as follows:

- claims 40-43 stand rejected under 35 U.S.C. 102(b) as being anticipated by Huttunen et al. (U.S. Patent No. 6,356,761);

- claims 1-10, 13-23, 27, 31-38 and 47 stand rejected under 35 U.S.C. 103(a) as being unpatentable over an alleged combination of Huttunen et al. and Strahm et al. (U.S. Patent Publication No. 2002/0133598);

- claims 11-12, 24-26 and 39 stand rejected under 35 U.S.C. 103(a) as being unpatentable over an alleged three-way combination of Huttunen et al., Strahm et al., and Chun et al. (U.S. Patent Publication No. 2002/0083029);

- claims 28-30 stand rejected under 35 U.S.C. 103(a) as being unpatentable over an alleged three-way combination of Huttunen et al., Strahm et al., and Szutu (U.S. Patent Publication No. 2001/0047395);

- claims 44-45 stand rejected under 35 U.S.C. 103(a) as being unpatentable over an alleged combination of Huttunen et al. and Chun et al.; and

- claim 46 stands rejected under 35 U.S.C. 103(a) as being unpatentable over an alleged combination of Huttunen et al. and Szutu.

These rejections are respectfully traversed, especially insofar as they may be applied against the claims as amended herein.

Independent Claim 1 and Dependent Claims 2-14

Amended independent claim 1 recites, among other features, the following additional steps:

> the mobile terminal submitting, to a first wireless network, a user request to expand a selected generic service name to identify its sub-level generic service names;
>
> the mobile terminal receiving, in response to the request, a listing of additional sub-level generic service names categorized with the selected generic service name;

The applied references (even if combinable) fail to teach or suggest the method recited in amended claim 1. The primary reference, Huttunen et al., relates generally to a system in which a mobile station user may access the Internet to receive requested local information. When the Huttunen et al. mobile station registers with its mobile network, the mobile network learns of the mobile station's location, and transmits a standard URL to the mobile device as a location indication (called "local address information" by Huttunen et al.) for future requests. Col. 9, lines 5-15. Then, when the user wishes to access local Internet information (e.g., a document or web page, or list of documents or web pages) using the mobile device, the mobile device includes this URL with the request so that the proper local information can be provided. Col. 9, lines 24-35. This local address information is shown in Figure 7 as IP address 210 (Figure 7 illustrates the request packet sent by the Huttunen et al. computer 11, which is coupled to the mobile station 12).

When the Huttunen et al. user wishes to access local Internet information, the request packet also includes a desired address (e.g., "regioninfo.com") typed in by the user. See, e.g., Fig. 7 and col. 9, lines 50-54. The Office Action relies on this desired address text as showing the claimed generic service name. However, the Huttunen et al. mobile station does not use any "user request to expand a selected generic service name to identify its sub-level generic service

names," as recited in amended claim 1. Specifically, there is no teaching or suggestion in Huttunen et al. that the request packets also include a request to expand "regioninfo.com" (the alleged generic service name) as recited. Instead, the Huttunen et al. access node (AN) simply responds to the request packet by sending the IP address of the desired destination to the user's Internet service provider. See, e.g., col. 8, lines 46-51. Furthermore, the Huttunen et al. mobile station does not receive "in response to the request, a listing of additional sub-level generic service names categorized with the selected generic service name," as also recited in amended claim 1.

As noted in the Office Action, Huttunen et al. does in fact describe the use of a DNS. However, Huttunen et al. does not teach or suggest that its DNS will have sub-levels of generic service names, as recited. To the contrary, Huttunen et al. only uses one level in its DNS table. See, e.g., Figure 5.

The Office Action also notes that at col. 9, lines 33-35, Huttunen et al. refers to returning a "list of documents" in response to the user's request. This "list of documents" is neither taught nor suggested to be a list of generic service names. To the contrary, the "documents" referred to in this passage are the underlying Internet pages that the user views "in a per se known manner," to use Huttunen et al.'s language, and there is no teaching or suggestion that these pages include generic service names. In fact, Huttunen et al. never refers to its desired address (e.g., "regioninfo.com," alleged to be a generic service name) as a "document."

The other applied references do not teach or suggest a modification to Huttunen et al. that would overcome these deficiencies. For at least these reasons, Applicants submit that amended independent claim 1 distinguishes over the applied references, and is in condition for allowance. Claims 2-14 depend from claim 1, and are allowable for at least the same reasons as claim 1, and further in view of the various features recited therein. For example, claim 6 recites a step of

"receiving a plurality of generic service names from the first wireless network after commencing wireless communication with the first wireless network." The Office Action refers to the list of documents cited at col. 9, lines 32-34 of Huttunen et al., alleging those documents are generic service names. As discussed above, there is no teaching or suggestion in Huttunen et al. that the "list of documents" is a list of generic service names. Instead, the "documents" referred to in that passage are the local Internet pages supplied to be viewed by the user "in a per se known manner," and there is no teaching or suggestion that the list also includes a plurality of generic service names.

As another example, claim 8 recites "the first and second generic service names are upper level generic service names in a generic service name tree, and the generic service name tree comprises multiple hierarchically arranged lower levels of generic service names." As noted above, the Office Action refers to Huttonen et al.'s mention of a DNS, but Huttonen et al. does not teach or suggest such a tree of generic service names. Huttonen et al. only shows a single level (e.g., mapping "regioninfo.com" to an actual web page, as opposed to lower levels of generic service names), and has no "multiple hierarchically arranged lower levels of generic service names."

Independent Claim 15 and Dependent Claims 16-30

Amended independent claim 15 recites the following additional features:

> transmitting, to a first wireless network, a request for a sub-level of generic service names assigned to the information category,
>
> receiving, from the first wireless network in response to the request, a list of generic services names of the sub-level,
>
> displaying a plurality of said generic service names of the sub-level,
>
> receiving a user selection of one of the sub-level generic service names,

As noted above, the Huttunen et al. request packet is shown in Figure 7 of that reference, and includes an IP address 210 of the user's computer, the DNS server address 212, and the user-entered desired address (214, e.g., "regioninfo.com"). The packet does not, however, include "a request for a sub-level of generic service names assigned to the information category." The request packet simply results in the Huttunen et al. AN transmitting a resolved address to the user's Internet service provider. Subsequent requests merely request the localized information (e.g., the local web page or list of pages that the user wanted to see). Furthermore, the Huttunen et al. mobile station does not receive a list of generic service names of the sub-level, display a plurality of the generic service names of the sub-level, and receive a user selection of one of the sub-level generic service names, as also recited.

The other applied references do not teach or suggest a modification to Huttunen et al. that would overcome these deficiencies. For at least these reasons, Applicants submit that amended independent claim 15 distinguishes over the applied references, and is in condition for allowance. Claims 16-30 depend from claim 15, and are allowable for at least the same reasons as claim 15, and further in view of the various features recited therein. For example, claim 21 recites "the first and second generic service names are upper level generic service names in a generic service name tree, and the generic service name tree comprises multiple hierarchically arranged lower levels of generic service names." The Office Action rejects this claim using the same allegation discussed above with respect to claim 8. As discussed above, Applicants submit that the mere use of a DNS by Huttunen et al. does not teach or suggest that the DNS will have multiple levels of generic service names, particularly when Huttunen et al. only describes having a single level.

As another example, claim 28 recites the following:

> accessing, upon receipt of a user selection of a location-dependent
> information category, a source of Global Positioning System
> (GPS) coordinate data,
>
> retrieving from said GPS source coordinate data for the current
> location of the mobile terminal, and
>
> transmitting the retrieved coordinate data to the first wireless
> network with the generic service name corresponding to the
> selected location-dependent category.

The Office Action concedes that the primary reference, Huttunen et al. fails to teach or suggest such a use of GPS data. To address this deficiency, the Office Action relies on Szutu. Szutu relates to an Internet mapping service that receives Internet requests formatted by a user for convenience (e.g., a user can assign an unique identification, such as the user's phone number, to a URL), "normalizes" them (e.g., converts the user's unique identification into the pre-assigned URL), and forwards them on to their intended destination. Szutu accomplishes this by first having the user undergo a registration process to register each desired URL with a unique identifier. See, e.g., para. [0018]. The unique identifier can be anything the user wishes (e.g., a telephone address, email address, etc.), so long as it is unique. Id. After the user has registered in this manner, the user can then use the unique identifier instead of having to remember and enter the entire URL string for a particular Web page. See, e.g., para. [0017]. The "normalization" occurs when the Szutu system receives the unique identifier in the user's request, consults database 150 to identify the URL that has been previously assigned to that unique identifier, and forwards the request using the URL to the desired server. See, e.g., para. [0019]. The new request has been "normalized" (in Szutu's terminology) to properly identify the URL.

Szutu mentions GPS at paragraph [0020]. There, Szutu describes multiple examples of the kinds of unique identification information that a user can use, such as a telephone number "corresponding to the target Web resource" (step a2), advertisement identifier number

"corresponding to the target Web resource" (step a4), or a branch location name and/or GPS

coordinates "corresponding to the target Web page" (step a6). The GPS coordinates referenced

in this passage are not "coordinate data for the current <u>location of the mobile terminal</u>," as

recited in claim 28. To the contrary, the GPS data used in Szutu have nothing to do with the

mobile terminal's location – the GPS data are coordinates of the <u>branch location</u> whose Web

page is being accessed (e.g., the local page of a business), and are only used by Szutu to uniquely

identify the branch's Web site. Indeed, Szutu requires that the unique identification (the GPS

data, in this case) be registered <u>in advance</u> by the user, and there is no teaching or suggestion in

Szutu that the user must know, in advance, where he/she will be when he/she wishes to view the

branch location's Web page. This same use of GPS data is also mentioned in paragraph [0025],

although with less detail.

As another example, claim 29 recites "retrieving from said GPS source coordinate data

for the current location of the mobile terminal" and "rewriting a generic service name

corresponding to the selected location-dependent category to include a description of the

geographic area." The Office Action relies on the same Szutu GPS unique identifier to reject

this claim. As discussed above, the Szutu GPS data does not identify the current location of the

mobile terminal. Instead, it is used to uniquely identify the source of the Web page being

requested (e.g., a store's branch location), and even if combined with Huttunen et al., would not

result in the recited rewriting.

<u>Independent Claim 31 and Dependent Claims 32-36 and 38-39</u>

Independent claim 31 has been amended to incorporate language formerly appearing in

dependent claim 37. No other changes to the claim are made.

This claim now recites the additional feature of "wherein the first and second generic

service names are upper level generic service names in a generic service name tree, and the

generic service name tree comprises multiple hierarchically arranged lower levels of generic service names." As noted above, the Office Action relies on the Huttunen et al. DNS server to show a multiple-level hierarchy of generic service names. The Huttunen et al. DNS table, shown in Fig. 5, does not have such levels of generic service names. Instead, each entry in the Huttunen et al. DNS table is mapped directly to an IP address – there is no teaching or suggestion of "multiple hierarchically arranged lower levels of generic service names," as recited.

The other applied references do not teach or suggest a modification to Huttunen et al. that would overcome these deficiencies. For at least these reasons, Applicants submit that amended independent claim 31 distinguishes over the applied references, and is in condition for allowance. Claims 32-36 and 38-39 depend from claim 31, and are allowable for at least the same reasons as claim 31, and further in view of the various features recited therein.

Independent Claim 40 and Dependent Claims 41-44

Amended independent claim 40 recites the following additional features:

> detecting a discovery request in a communication received from a requesting mobile terminal, said discovery request accompanied by an identification of a category of information, and

> in response to detecting said discovery request, providing a multi-level hierarchical directory of generic service names to said requesting mobile terminal for display to a user

None of the applied references, alone or in combination, teaches or suggests the claim 40 server. Assuming, *arguendo*, that the next Office Action will assert that the "regioninfo.com" desired address in Huttunen et al. is an identification of a category of information, Huttunen et al. does not respond as recited in the amended claim. Specifically, Huttunen et al. fails to teach or suggest "providing a multi-level hierarchical directory of generic service names to said requesting mobile terminal for display to a user." The current Office Action's reliance on the Huttunen et al.'s DNS has already been discussed, and Applicants submit that the Huttunen et

al.'s use of a DNS still does not teach or suggest a multi-level hierarchical directory of generic service names.

Furthermore, amended claim 40 recites providing the multi-level hierarchical directory of generic service names to the requesting mobile terminal for display to a user. Huttenen et al.'s DNS table (shown in Figure 5) resides at the DNS, and is not taught or suggested to be provided to the mobile station.

The other applied references do not teach or suggest a modification to Huttunen et al. that would overcome these deficiencies. For at least these reasons, Applicants submit that amended independent claim 40 distinguishes over the applied references, and is in condition for allowance. Claims 41-44 depend from claim 40, and are allowable for at least the same reasons as claim 40, and further in view of the various features recited therein.

Independent Claim 45

Amended independent claim 45 recites, among other features, the following:

> storing a plurality of generic service names in a database in the
> memory, each of the generic service names being mapped to a
> plurality of alternate information resources in a plurality of
> different languages, wherein said alternate information resources
> provide a common type of service

None of the applied references, alone or in combination, teaches or suggests the claim 45 server, which has a database as recited above. In rejecting claim 45, the Office Action concedes that the principal reference, Huttunen et al., fails to teach or suggest the recited use of language information. To address this deficiency, the Office Action combines Huttenen et al. with Chun et al. As stated in the Office Action, Chun et al. relates generally to allowing users who speak different languages to access the same Internet site. Chun et al. does this by allowing users who speak different languages to enter a desired URL in their own native language, and then translating those native-language URLs into the Internet site's Romanized URL (e.g., English

characters and numerals) by using a phonetic dictionary. See, e.g., para. [0070] for an example table of Korean phonemes and corresponding Romanized phrases. Chun et al. involves different people accessing <u>one</u> site by entering <u>different</u> URLs. Chun et al. does not teach or suggest the Korean-language URL being "mapped to a <u>plurality of alternate information resources</u> in a plurality of different languages, wherein said alternate information resources provide a common type of service" as recited in amended claim 45.

Independent Claim 46

Amended independent claim 46 recites, among other features, "receiving a plurality of communications from mobile terminals via the communications interface, each communication of the plurality containing a service name of the plurality of service names and Global Positioning System (GPS) coordinate data <u>corresponding to said mobile terminal</u>." In rejecting claim 46, the Office Action relies on Huttunen et al. for most of the features, but relies on Szutu for the GPS features. As described above, the Szutu GPS data is only used as a unique identifier to identify the target Web site (e.g., a particular store's Web site). The limited Szutu GPS data is not "coordinate data corresponding to said mobile terminal," as recited in amended claim 46. None of the other applied references teaches or suggests a modification to Szutu or Huttunen et al. that would overcome these deficiencies.

Independent Claim 47

In rejecting this claim, the Office Action relies on an alleged combination of Huttunen et al. and Strahm. However, this alleged combination fails to teach or suggest the claim 47 mobile terminal. For example, claim 47 recites "appending data comprising stored values for language preference, Cell ID and Area ID to the first generic service name." The Office Action relies on Huttunen et al., alleging that such a feature is an inherent language setting. Even assuming that Huttunen et al. employs a language setting to allow functionality in different languages (an

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assumption for which the Office Action cites no support), there is no teaching or suggestion that this language setting would be appended to the "regioninfo.com" desired address described in Huttunen et al. (and relied upon to show the claimed generic service name).

Additionally, claim 47 recites "receiving, in response to transmission of a second generic service, additional generic service names in a lower level of a hierarchically arranged tree of generic service names." As discussed above, the Office Action cites the Huttunen et al. DNS as disclosing such a hierarchically arranged tree, but there is no teaching or suggestion that a DNS is a tree <u>of generic service names</u>. There is also no teaching that Huttunen et al., whose own tables shown in Figure 6 are not depicted hierarchically, would employ such a hieararchy for its desired addresses.

Conclusion

For at least the reasons set forth above, Applicants submit that pending claims 1-36 and 38-47 are distinguishable over the applied references, and are in condition for allowance. However, if the Examiner feels that additional discussion and/or amendment would be helpful, the Examiner is invited to telephone Applicants' undersigned representative at the number appearing below.

Respectfully submitted,

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